

UK

Notice of Allowability	Application No.	Applicant(s)	
	09/624,236	HADAD, ZION	
	Examiner	Art Unit	
	Ted M. Wang	2634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 04/28/2005.
2. ☒ The allowed claim(s) is/are 16-26.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>11/28/2005</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

Examiner's Statement

1. Applicants' amendments and arguments, filed on 04/28/2005, PAPER NUMBER 8, with respect to Claims 16-26 have been fully considered. The 35U.S.C.102(e) and 103(b) rejections have been overcome by rewritten those objected claims – dependent claims in independent form including all of the limitations of the base claim and any intervening claims.

Examiner Amendments

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

3. Authorization for this examiner's amendment was given by the Applicant, Dr. Zion Hadad, in a telephone interview on November 21, 2005.

4. The application has been amended as follows:

In the claims:

- Change Claim 20 as following –

--- 20(New). In a multicarrier system, a method for allocating subcarriers to subscribers, comprising the steps of:

A. keep a table based of Reed-Solomom (R-S)~~R-S~~ codes for frequency group allocation to base stations;

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B. assign one set of subcarriers based on allocation using the R-S codes assigned to a base station;

C. assign other sets of subcarriers based on R-S codes to other base stations in such a way that adjacent base stations have different R-S codes, to minimize the number of collision points there between, further including the steps of:

C1. where a base station has sectorized coverage, a plurality of R-S codes are assigned to that station for use with the various sectors;

C2. base station keeps a table of available R-S codes, wherein part of the R-S codes are tagged "free" whereas the others are "in use";

C3. when a new subscriber gains access through a base station, the subscriber is assigned one or more of the R-S codes for that cell according his assigned bandwidth (BW);

C4. when a subscriber leaves the cell or when he does not have assigned BW, his R-S code is tagged as "free";

C5. a new subscriber is assigned a shifted version of the R-S code;

C6. different R-S codes are allocated in various sectors, and taking into account the R-S code of the nearby cell. ---

□ Change claim 21 as following –

--- 21(New). The method for allocating subcarriers to subscribers according to claim 20, further including the step of:

D. allocating several codes to each station for near/far subscribers, and separating far/near subscribers using different codes. ---

□ Change claim 22 as following –

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--- 22(New). The method for allocating subcarriers to subscribers according to claim 20, further including the step of:

E. allocating several codes to each of several adjacent users within one cell, to decrease the interference resulting from Doppler, phase noise or collisions with other subscribers.

Allowable Subject Matter

5. Claims 16-20 are allowed.

6. The following is an examiner's statement of reasons for allowance.

□ The prior art fails to teach a system of Claims 16-26 that specifically comprises the following:

-- The instant application is deemed to be directed to a non-obvious improvement over the admitted prior art of the instant application and the invention patented in Pat. No. US 5,987,061, US 6,044,074, and EP 0,971,554A2, and PG PUB US2001/0055320A1, and Nicolas et al.

(Acoustics, Speech, and Signal Processing, 1994. ICASSP-94., 1994 IEEE International Conference on , Volume: iii , 19-22 April 1994 Page(s): III/245 - III/248 vol.3). The improvement comprises that wherein the subcarriers allocation controller allocates subcarriers using, for each subscriber, a shifted version of a Reed-Solomon (R-S) code that are separated by more than one step difference.

7. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ted M. Wang whose telephone number is (571) 272-3053. The examiner can normally be reached on M-F, 7:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on (571) 272-3056. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).

Ted M Wang

Examiner

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Ted M. Wang


STEPHEN CHIN
SUPERVISORY PATENT EXAMINE
TECHNOLOGY CENTER 2600